

WHAT IS CLAIMED IS:

1. An automatic analyzer comprising:
  - a sample container for holding a sample;
  - a sample dispensing mechanism for dispensing a sample in the sample container;
  - a sample container transfer mechanism for transferring the sample container to the sample dispensing position in the sample dispensing mechanism;
  - a reaction vessel where the sample dispensed by the sample dispensing mechanism is discharged and mixed with a reagent; and
  - a measuring mechanism for measuring a reaction in the reaction vessel,
- wherein an information recording medium on which information for identifying a sample in the sample container is recorded, is attached to the sample container; and
- wherein the automatic analyzer further comprises the mechanisms of:
  - prior to the dispensation of a sample by the sample dispensing mechanism, reading the information recorded on the information recording medium and identifying the sample in the sample container;
  - thereafter, immediately before or immediately after the dispensation of the sample by the sample dispensing mechanism, reading again the information recorded on the information recording medium attached to the sample container and thereby performing identification of the

sample in the sample container; and

identifying whether the sample that has been identified immediately before or immediately after the dispensing is the same as a sample that is about to be dispensed or a sample that has been dispensed.

2. The automatic analyzer according to Claim 1, further comprising the function of dispensing a sample by the sample dispensing mechanism only when the sample that is about to be dispensed is the same as the sample identified before.

3. The automatic analyzer according to Claim 1, further comprising the function of issuing an alarm when a sample that has been dispensed is different from the sample identified before.

4. The automatic analyzer according to Claim 1, wherein the sample container transfer mechanism can mount a plurality of the sample containers on the circumference thereof, and wherein the sample container transfer mechanism transfers each of the sample containers to the sample dispensing position in the sample dispensing mechanism by being rotated.

5. The automatic analyzer according to Claim 1, further comprising a cover for preventing a sample container from being taken out of the sample transfer mechanism until

the sample dispensing mechanism dispenses a sample from the sample container, after information recorded on a information recording medium attached to the sample container again reading immediately before the dispensation of the sample by the sample dispensing mechanism.

6. An automatic analyzer comprising:

a sample container for holding a sample;

a sample dispensing mechanism for dispensing a sample in the sample container;

a sample container transfer mechanism for transferring the sample container to the sample dispensing position in the sample dispensing mechanism;

a reaction vessel where the sample dispensed by the sample dispensing mechanism is discharged and mixed with a reagent;

a measuring mechanism for measuring a reaction in the reaction vessel,

a sample container detecting mechanism for detecting whether the sample container in a sample container mountable position on the circumference of the sample container transfer mechanism is present, by irradiating the sample container mountable position with electromagnetic waves and detecting the reflected waves thereof;

a timing generating mechanism for indicating the timing to detect the reflected waves; and

a mechanism for storing the output of reflected waves detected based on detection timing generated by the timing

generation mechanism, and determining, based on this stored output, whether the sample container in the sample container mountable position on the circumference is present,

wherein an information recording medium on which information for identifying a sample in the sample container is recorded, is attached to the sample container; and

wherein the sample container transfer mechanism can mount a plurality of the sample containers on the circumference thereof, and wherein the sample container transfer mechanism transfers each of the sample containers to the sample dispensing position in the sample dispensing mechanism by being rotated.

7. The automatic analyzer according to Claim 6, wherein, only for positions about which reading of sample identification-label information failed although containers were set there, reading operation with respect to the identification information is performed again and wherein the rotational speed of a sample disk during the rereading is lower than the rotational speed thereof during first time reading operation.

8. The automatic analyzer according to Claim 5, wherein the cover comprises a portion covering at least one part of the moving locus of the front end of a probe of the sample dispensing mechanism.

9. The automatic analyzer according to Claim 5,

wherein the cover further comprising a mechanism capable of moving from on the sample container transfer mechanism so that a sample container on the sample container transfer mechanism can be taken out.

10. The automatic analyzer according to Claim 9, further comprising:

a movement detector for detecting that the cover has moved; and

a mechanism for preventing the sample dispensing mechanism from performing a dispensing operation when the movement detector has detected a movement of the cover.

11. The automatic analyzer according to Claim 10, wherein the cover is constituted of an electrically conductive material.